

REMARKS

Preliminary Remark:

The Examiner withdrew the Restriction Requirement; accordingly, the “withdrawn” claims are now shown as “previously presented”.

5 Claims 1, 3—13, 18—30 are currently pending.

Claims 2, 14—17 were previously cancelled.

Claims 1, 5, 7—10 and 20—22 are original.

Claims 3, 4, 11, 19 and 28 are currently amended.

Claims 6, 12—13, 18, 23—27 and 29—30 are previously presented.

10 (Note: Claim 11 is amended to remove the dash in the phrase “deflector-in”).)

Claim Objections

The Applicant would like to stress willingness to work with the Examiner on these issues. However, the Applicant is somewhat confused by the Claim Objections.

15 In particular, a suggestion was made that in **claims 4 and 19** required insertion of --printing zone-- to support the antecedent basis.

Claims 4 and 19 both recite “...slopes downwards at about 10° below the horizontal”. As the Applicant understands it, the phrase “10° below the horizontal” implies an orientation of slightly less than level. That is, a slight
20 downward slope. A slope that is 10° below the horizontal would be 10° less than level, since horizontal is level.

 However, while the phrase frequently includes “the”, it could also be stated as “10° below horizontal”, meaning a slight downward slope. By eliminating the word “the”, the Applicant feels that the meaning is unchanged;
25 however, the form may look better, with respect to antecedent basis.

 With respect to independent **claim 18**, the Applicant is confused as to why the addition of --located downstream of the horizontal printing zone--

would be needed to support antecedent basis within claim 18, or within any other claim. If the Examiner persists in this matter, the Applicant respectfully asks for clarification, including particular which claim has an antecedent basis problem, and how this amendment would solve it. Upon such a clarification,

5 the Applicant will be glad to fix any antecedent basis problem.

Double Patenting

The Applicant attaches a terminal disclaimer, due to the 6,648,465 patent.

35 U.S.C. §102

10 Anticipation is a legal term of art. According to the MPEP §2131, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the claim. The applicant notes that in order to provide a valid finding of

15 anticipation, several conditions must be met: (i) the reference must include every element of the claim within the four corners of the reference (see MPEP §2121); (ii) the elements must be set forth as they are recited in the claim (see MPEP §2131); (iii) the teachings of the reference cannot be modified (see MPEP §706.02, stating that "No question of obviousness is present" in

20 conjunction with anticipation); and (iv) the reference must enable the invention as recited in the claim (see MPEP §2121.01). Additionally, (v) these conditions must be simultaneously satisfied.

The §102 rejection of claims 1, 3, 11—13 and 18 is believed to be in error. Specifically, the PTO and Federal Circuit provide that §102

25 anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. *In re Spada*, 911 F.2d 705,

15 USPQ2d 1655 (Fed. Cir. 1990). The corollary of this rule is that the absence from a cited §102 reference of any claimed element negates the anticipation. *Kloster Speedsteel AB, et al. v. Crucible, Inc., et al.*, 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986).

5 No §103 rejection has been lodged regarding claims 1, 3, 11—13 and 18. Accordingly, if the Applicant can demonstrate that the cited references (Peter with respect to claims 1, 3 and 18; and Codos with respect to claims 11—13) do not disclose any one element recited in any claim, the §102 rejection for that claim must be withdrawn.

10 Applicant notes the requirements of MPEP §2131, which states that “to anticipate a claim, the reference must teach every element of the claim.” This MPEP section further states that “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.’

15 *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). ‘The identical invention must be shown in as complete detail as is contained in the ... claim.’ *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but

20 this is not an ipsissimis verbis test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).”

Claims 1, 3 and 18 were rejected under §102 as being anticipated by U.S. patent 6,231,176, herein after “Peter”. The Applicant respectfully traverses the rejection.

Claim 1 recites in part: “a heated media deflector configured to guide and dry the media, the heated media deflector located downstream of the horizontal printing zone.”

The Peter reference fails to disclose each and every element recited. In particular, Peter fails to disclose location of the heated media deflector “downstream” of the printing zone. As seen in Fig. 1 of Peter, the heater is located below, or at, the printing zone. Accordingly, Peter does not show a heater in a location that is *downstream* of the printing zone. A downstream location would be a location to which print media moves after printing; that is, after ink is applied to the media, the media continues to move *downstream* along the paper path, arriving at a place “located downstream of the horizontal printing zone”.

The Patent Office actually notes that the heated media deflector is *not located downstream*, but is instead located *under* the printing zone 38 of the horizontal printing zone. The Applicant agrees that the heated media deflector is not located downstream from the print zone, and agrees that heated media deflector is located under the print zone.

Referring to Fig. 3 of the Applicant’s disclosure, the heated media deflector 200 is seen in a location that is *downstream* of the printing zone.

Therefore, the Peter reference fails to disclose the arrangement recited by claim 1. Accordingly, the Applicant respectfully requests that the section 102 rejection be withdrawn.

Claim 3 has been amended to recite, in part, “wherein the sheet metal portion comprises a heating resistor configured for drying the media and for attaching to a bottom face of the sheet metal portion.” Objected-to claim 5

recited a similar restriction. Accordingly, as amended, claim 3 is allowable for much the same reasons the Patent Office indicated that claim 5 is allowable.

Claim 18 recites, in one paragraph, two components and a relationship between them. In particular, claim 18 recites: “a heating resistor attached to a bottom face of the sheet metal”. That is, the claim recites a first component, “a heating resistor,” and a second component, “a bottom face of the sheet metal,” and a relationship, i.e. “attached to”. In contrast, the Peter reference discloses a single tensioned flat heating member 90. The reference fails to disclose two components, one being “a heating resistor” and the other being “a sheet metal portion”. Instead, the Peter reference discloses a simpler system, wherein a single heating strip 90 is made of thin metal. Additionally, the Peter reference fails to disclose attachment of that heating resistor to “a bottom face of the sheet metal”.

The Patent Office suggests that the components recited in the Applicants claims are “integrally” related. However, by saying that one component (the heating strip 90) includes two or more components recited in the claim, the Patent Office has indicated that there are differences between the Peter reference and claim 18. Therefore, the Peter reference does not show each and every element recited by claim 18. Accordingly, the §102 rejection is improper in view of the requirements discussed above, and the Applicant respectfully requests that the §102 rejection be withdrawn.

Claims 11—13 were rejected under §102 as being anticipated by U.S. patent 6,726,317, herein after “Codos”. The Applicant respectfully traverses the rejection.

Claim 11 recites in part a heated media deflector located “*in a transition area*” between the substantially horizontal printing plane and the substantially

vertical feeding path” (emphasis added). In contrast, the Codos reference shows a heater located as a “detour” in the pathway of the substantially vertical path. Referring to Fig. 3 of Codos, note that the media leaves roller 618 moving in a substantially vertical direction. The media then enters the heater
5 660. Upon leaving the heater, a roller (no number listed) returns the media to the substantially vertical orientation. Therefore, the media was substantially vertically oriented before and after passage through the heater 660. Thus, the heater 660 is not located in “a transition” between horizontal and vertical.

The Office Action suggests that the heater 660 is located in a transition.
10 However, as seen in Codos’ Fig. 3, *the actual transition between substantially horizontal media movement and substantially vertical media movement is roller 618, wherein the transition is made.* The media movement through the heater 660 is therefore a detour between substantially vertical movement immediately following departure from roller 618 and substantially vertical
15 movement immediately prior to arrival at roller 667.

In contrast, Fig. 3 of the Applicant’s disclosure shows an example consistent with the Applicant’s design, wherein the deflector 200 causes the media to effectively turn the corner between substantially horizontal travel through the print area and substantially vertical travel out exit 350.
20 Accordingly, the Codos reference fails to teach this element of the Applicant’s construction, as recited in claim 11. The Applicant respectfully requests that the section 102 rejection be removed.

Claims 12 and 13 depend from claim 11, which is allowable for the reasons seen above. Accordingly, claims 12 and 13 are allowable, and the
25 Applicant respectfully requests that the section 102 rejection be removed.

35 U.S.C. §103

Claims 23—25 were rejected under §103 as being unpatentable over Peter in view of U.S. patent 6,179,418, herein after “Mizoguchi”. The Applicant respectfully traverses the rejection.

Claim 23 recites, in part, “set a heating temperature of the media deflector based on the detected environmental conditions.” **Claim 24** indicates that the environmental conditions could include temperature and ambient humidity. In contrast, Fig. 4 of the Mizoguchi reference, shows that detection of ambient temperature 24 and ambient humidity 25 is used as an input to pressure driving means 22, which fixes toner on paper. However, Mizoguchi does not disclose application of the temperature and humidity data to a heater 7. Such information is not required in the laser/toner technology disclosed by Mizoguchi.

The Patent Office takes the position that the temperature/humidity sensors of Mizoguchi are used as input to the heater; however, examination of the block diagram of Fig. 4 reveals that the sensors for heat 24 and humidity 25 are used to control roller driving pressure 22, not a heater 7. Additionally, the Patent Office points to column 5, lines 44—46; however, these lines discuss the result (i.e. data is properly fixed) but do not disclose the structures recited in the claim.

As a result, it is clear that Mizoguchi discloses use of temperature (Fig. 4, number 24) and humidity (Fig. 4, number 25) in controlling roller pressure in the toner fusing process (Fig. 4, number 22), but not to control the heater (Fig. 4, number 7). Accordingly, because all of the elements recited by the claims 23 and 24 are not shown or suggested by the references, the Applicant respectfully requests that the section 103 rejection of claims 23 and 24 be removed.

Claim 23 additionally recites “set a heating temperature of the media deflector based on ... the determined print mode parameters.” **Claim 25** indicates that the parameters can include plot width, media advance rate, printhead scanning rate and ink fired per scan. The Mizoguchi reference appears to be silent on these issues. The Patent Office suggests that column 3 lines 6—9 and column 5, lines 44—46 mention these aspects. However, the Applicant does not see any of the factors recited in claim 25 mentioned in Mizoguchi or any of the other references. Accordingly, because all of the elements recited by the claims are not shown or suggested by the references (i.e. the reference is silent about plot width, media advance rate, printhead scanning rate and ink fired per scan), the Applicant respectfully requests that the section 103 rejection of claims 23 and 25 be removed.

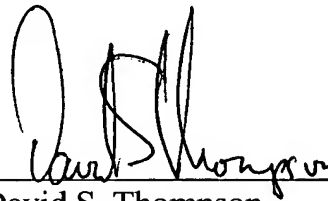
Claims 27—29 were rejected under §103 as being unpatentable over Codos in view of Mizoguchi. The Applicant respectfully traverses the rejection. In particular, claims 27—29 are allowable for reasons very similar to those seen above with respect to claims 23—25, which are incorporated by reference at this location. To recapitulate with respect to claims 27—28, Mizoguchi does not show temperature and humidity used to modify a heater; Mizoguchi shows use of temperature 24 and pressure 25 used to modify a pressure roller 22, not a heater 7. (See Fig. 4.) And to recapitulate with respect to claims 27 and 29, plot width, media advance rate, printhead scanning rate and ink fired per scan are apparently not shown by Mizoguchi.

Since the elements recited in the claims do not appear to be shown, the Applicant respectfully requests that the §103 rejections to claims 27—29 be removed.

Conclusion

The Applicant submits that all of the claims are in condition for allowance and respectfully requests that a Notice of Allowability be issued. If the Office's next anticipated action is not the issuance of a Notice of Allowability, the Applicant respectfully requests that the undersigned attorney
5 be contacted for the purpose of scheduling an interview.

Respectfully Submitted,



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